AMENDMENTS TO THE CLAIMS

Listing of Claims

This Listing of Claims will replace all prior versions and listings of claims in the application.

1-19 (Canceled).

20. (Currently amended) The composition according to claim [[19]] 46, further comprising an additional agent selected from an immunosuppressant, an anti-cancer agent, an anti-viral agent, an anti-inflammatory agent, an antifungal agent, an antibiotic, or an anti-vascular hyperproliferation compound.

21. (Withdrawn-currently amended) A method of treating or preventing an IMPDH-mediated disease or condition in a mammal comprising the step of administering to said mammal a composition according to ~~claim 19 or 20~~ any one of claims 20, 46, 50, and 51.

22. (Withdrawn) The method according to claim 21, wherein said IMPDH-mediated disease or condition is selected from transplant rejection, graft versus host disease, or an autoimmune disease.

23. (Withdrawn) The method according to claim 22, wherein said mammal is administered an additional immunosuppressant in a separate dosage form or as part of said composition.

24. (Withdrawn-currently amended) A method for inhibiting replication of a virus in a mammal comprising the step of administering to said mammal a composition according to ~~claim~~

~~19 or 20~~ any one of claims 20, 46, 50, and 51.

25. (Withdrawn) The method according to claim 24, wherein said virus is selected from orthomyxovirus, paramyxovirus, herpesvirus, retrovirus, flavivirus, pestivirus, hepatotrophic virus, bunyavirus, Hantaan virus, Caraparu virus, human papilloma virus, encephalitis virus, arena virus, reovirus, vesicular stomatitis virus, rhinovirus, enterovirus, Lassa fever virus, togavirus, poxvirus, adenovirus, rubiola, or rubella.

26. (Withdrawn) The method according to claim 25, wherein said mammal is administered an additional anti-viral agent in a separate dosage form or as part of said composition.

27. (Withdrawn-currently amended) A method for inhibiting vascular cellular hyperproliferation in a mammal comprising the step of administering to said mammal a composition according to ~~claim 19 or 20~~ any one of claims 20, 46, 50, and 51.

28. (Withdrawn) The method according to claim 27, wherein said method is useful in treating or preventing restenosis, stenosis, artherosclerosis or other hyperproliferative vascular disease.

29. (Withdrawn) The method according to claim 28, wherein said mammal is administered an additional anti-vascular hyperproliferative agent in a separate dosage form or as part of said composition.

30. (Withdrawn-currently amended) A method for inhibiting tumors and cancer in a mammal comprising the step of administering to said mammal a composition according to ~~claim 19~~

~~or 20~~ any one of claims 20, 46, 50, and 51.

31. (Withdrawn) The method according to claim 30, wherein said medicament is useful to treat or prevent lymphoma, leukemia and other forms of cancer.

32. (Withdrawn) The method according to claim 31, wherein said mammal is administered an additional anti-tumor or anti-cancer agent in a separate dosage form or as part of said composition.

33. (Withdrawn-currently amended) A method for inhibiting inflammation or an inflammatory disease in a mammal comprising the step of administering to said mammal a composition according to ~~claim 19 or 20~~ any one of claims 20, 46, 50, and 51.

34. (Withdrawn) The method according to claim 33, wherein said method is useful for treating or preventing osteoarthritis, acute pancreatitis, chronic pancreatitis, asthma or adult respiratory distress syndrome.

35. (Withdrawn) The method according to claim 33, wherein said mammal is administered an additional anti-inflammatory agent in a separate dosage form or as part of said composition.

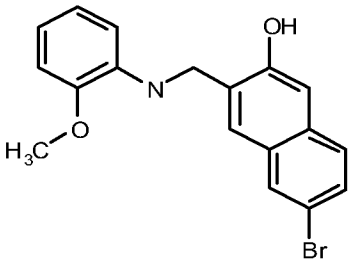
36. (Withdrawn-currently amended) The composition of claim [[19]] 46 or 20, wherein X is $-N(R_6)-C(O)-Y-$.

37. (Withdrawn) The composition of claim 36, wherein Y is $-C(R_{12})=C(R_{12})-$.

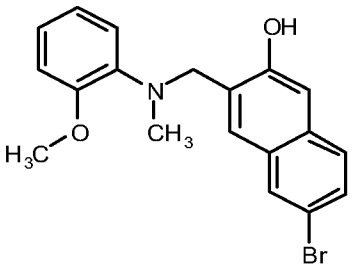
38. (Withdrawn-currently amended) The composition of claim [[19]] 46 or 20,

wherein Q is -N(H)-C(O)-O-.

39. (Withdrawn) A compound selected from the group consisting of 115 and 151;



115



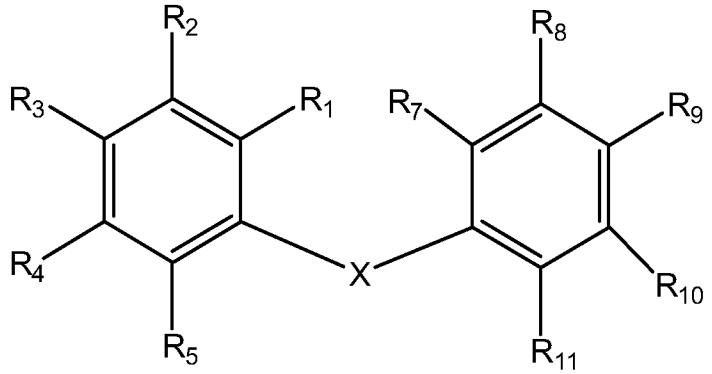
151.

40. (Withdrawn) A compound selected from the group consisting of 101, 103, 104, 105, 106, 107, 110, 111, 112, 113, 114, 116, 117, 118, 119, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 148, 149, 153, 154, 155, 156, 159, 160, 162, 163, 164, 165, 166, 168, 169, 172, 173, 175, 177, 178, 179, 181, 182, 183, 184, 185, 188, 191, 192, 193 and 304.

41-45. (Canceled).

46. (Currently amended) A composition comprising:

a) a compound of the formula:



wherein:

X is selected from -C(O)-N(R_6)-, -N(R_6)-C(O)-, -CH_2-N(R_6)-, -N(R_6)-CH_2-, -N(R_6)-S(O)$_2$-, -S(O)$_2$-N(R_6)-, -C(R_{12})(R_{12})-C(O)-, -C(O)-C(R_{12})(R_{12})-, -C(R_{12})(R_{12})-S(O)$_2$-, -S(O)$_2$-C(R_{12})(R_{12})-, -S(O)$_2$-O-, -O-S(O)$_2$-, -N(R_6)-C(O)-Y- or -Y-C(O)-N(R_6)-; wherein

each R_6 is independently selected from hydrogen, C_1-C_4 straight or branched alkyl, C_2-C_4 straight or branched alkenyl or alkynyl, Ar-substituted-C_1-C_4 straight or branched alkyl, or Ar-substituted-C_2-C_4 straight or branched alkenyl or alkynyl; wherein

each R_6, except hydrogen, is optionally substituted with up to 3 substituents independently selected from halo, hydroxy, nitro, cyano or amino;

each R_{12} is independently selected from R_6, W-[C_1-C_4 straight or branched alkyl], W-[C_2-C_4 straight or branched alkenyl or alkynyl], Ar-substituted-[W-[C_1-C_4 straight or branched alkyl]], Ar-substituted-[W-[C_2-C_4 straight or branched alkenyl or alkynyl]], O-Ar, N(R_6)-Ar, S-Ar, S(O)-Ar, S(O)$_2$-Ar, S-C(O)H, N(R_6)-C(O)H, or O-C(O)H; wherein

W is O-, O-C(O)-, S-, S(O)-, $S(O)_2$-, S-C(O)-, $N(R_6)$-, or $N(R_6)$-C(O)-; and wherein

each R_{12} is optionally and independently substituted with up to 3 substituents independently selected from halo, hydroxy, nitro, cyano or amino;

Y is selected from -O-, -S-, -C≡C-, $-C(R_{12})_2-C(R_{12})_2-$, $-C(R_{12})_2-$ or $-C(R_{12})=C(R_{12})-$;

each of R_1, R_2, R_3, R_4, R_5, R_7, R_8, R_9, R_{10}, and R_{11} is independently selected from hydrogen, halo, hydroxy, cyano, nitro, amino, $-C(O)NH_2$, Z-[(C_1-C_4)-straight or branched alkyl], Z-[(C_2-C_4)-straight or branched alkenyl or alkynyl], Ar-substituted-[(C_1-C_4)-straight or branched alkyl], Ar-substituted-[(C_2-C_4)-straight or branched alkenyl or alkynyl], Ar, Q-Ar, [(C_1-C_4)-straight or branched alkyl]-Q-Ar, [(C_2-C_4)-straight or branched alkenyl or alkynyl]-Q-Ar, O-[(C_1-C_4)-straight or branched alkyl]-Q-Ar, O-[(C_2-C_4)-straight or branched alkenyl or alkynyl]-Q-Ar, [(C_1-C_4)-straight or branched alkyl]-Q-R_{13}, or [(C_2-C_4)-straight or branched alkenyl or alkynyl]-Q-R_{13}, ~~or any two adjacent groups selected from either R_1 and R_2 or R_7, R_8, R_9, R_{10}, and R_{11} may be taken together with the carbon atoms to which they are bound to form a 5 to 6-membered aromatic carbocyclic or heterocyclic ring; and~~

~~R_3 and R_4 are taken together with the carbon atoms to which they are bound to form a 5 to 6-membered aromatic carbocyclic or heterocyclic ring;~~

wherein two adjacent groups selected from either R_1, R_2, R_3, R_4, and R_5 or R_7, R_8, R_9, R_{10}, and R_{11}, are taken together with the carbon atoms to which they are bound to form a 5 to 6 membered aromatic carbocyclic ring or heterocyclic ring; and wherein

Z is selected from a bond, O-, S-, $S(O)_2$-, C(O)-, OC(O)-, or N(H)C(O)-;

Q is selected from O, -O-C(O)-, -C(O)-O-, -N(H)-C(O)-O-, -O-N(H)-C(O)-, -N(H)-C(O)-, -C(O)-N(H)-, -O-C(O)-N(H)-, or –C(O)-N(H)-O-;

Ar is selected from phenyl, 1-naphthyl, 2-naphthyl, indenyl, azulenyl, fluorenyl, anthracenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, pyrazolyl, 2-pyrazolinyl, pyrazolidinyl, isoxazolyl, isotriazolyl, 1,2,3-oxadiazolyl, 1,2,3-triazolyl, 1,3,4-thiadiazolyl, pyridazinyl, pyrimidinyl, pyrazinyl, 1,3,5-triazinyl, 1,3,5-trithianyl, indolizinyl, indolyl, isoindolyl, 3H-indolyl, indolinyl, benzo[b]furanyl, benzo[b]thiophenyl, 1H-indazolyl, benzimidazolyl, benzthiazolyl, purinyl, 4H-quinolizinyl, quinolinyl, isoquinolinyl, 1,2,3,4-tetrahydro-isoquinolinyl, cinnolinyl, phthalazinyl, quinazolinyl, quinoxalinyl, 1,8-naphthyridinyl, piperidinyl, carbazolyl, acridinyl, phenazinyl, phenothiazinyl or phenoxazinyl or other chemically feasible monocyclic, bicyclic or tricyclic ring systems, wherein each ring consists of 5 to 7 ring atoms and wherein each ring comprises 0 to 3 heteroatoms independently selected from N, O and S;

R_{13} is selected from [C_1-C_{12} straight or branched alkyl] or, [C_2-C_{12} straight or branched alkenyl or alkynyl]; wherein R_{13} is optionally substituted with 1 to 4 substituents independently selected from R_{14} or R_{15}, wherein

each R_{14} is a monocyclic or a bicyclic ring system consisting of 3 to 7 members per ring, wherein said ring system optionally comprises up to 4 heteroatoms selected from N, O, and S; wherein a CH_2 adjacent to said N, O or S may be substituted with C(O); and wherein R_{14} optionally

comprises up to 2 substituents independently selected from $(C_1\text{-}C_4)$-straight or branched alkyl, $(C_2\text{-}C_4)$-straight or branched alkenyl, 1,2-methylenedioxy, 1,2-ethylenedioxy, $(CH_2)_n\text{-}R_{16}$, $\text{-S-}(CH_2)_n\text{-}R_{16}$, $\text{-S(O)-}(CH_2)_n\text{-}R_{16}$, $\text{-S(O)}_2\text{-}(CH_2)_n\text{-}R_{16}$, $\text{-O-}(CH_2)_n\text{-}R_{16}$, or $\text{–N}(R_{18})\text{-}(CH_2)_n\text{-}R_{16}$

wherein n is 0, 1 or 2;

R_{16} is selected from halogen, -CN, -NO_2, -CF_3, -OCF_3, -OH, $\text{-S-}(C_1\text{-}C_4)\text{-alkyl}$, $\text{-S(O)-}(C_1\text{-}C_4)\text{-alkyl}$, $\text{-S(O)}_2\text{-}(C_1\text{-}C_4)\text{-alkyl}$, -NH_2, $\text{-NH-}(C_1\text{-}C_4)\text{-alkyl}$, $\text{-N}((C_1\text{-}C_4)\text{-alkyl})_2$, COOH, $\text{C(O)-O-}(C_1\text{-}C_4)\text{-alkyl}$ or $\text{O-}(C_1\text{-}C_4)\text{-alkyl}$; and

each R_{15} is independently selected from –OR_{17}, or $\text{–N}(R_{18})_2$;

R_{17} is selected from hydrogen, $\text{-}(C_1\text{-}C_6)$-straight alkyl, $\text{-}(C_1\text{-}C_6)$-straight alkyl-Ar, $\text{-C(O)-}(C_1\text{-}C_6)$-straight or branched alkyl, -C(O)-Ar, or $\text{–}(C_1\text{-}C_6)$-straight alkyl-CN; and

each R_{18} is independently selected from $\text{–}(C_1\text{-}C_6)$-straight or branched alkyl, $\text{-}(C_1\text{-}C_6)$-straight or branched alkyl-Ar, $\text{-}(C_1\text{-}C_6)$-straight alkyl-CN, $\text{-}(C_1\text{-}C_6)$-straight alkyl-OH, $\text{-}(C_1\text{-}C_6)$-straight alkyl-OR_{17}, $\text{-C(O)-}(C_1\text{-}C_6)$-straight or branched alkyl, -C(O)-Ar, $\text{-S(O)}_2\text{-}(C_1\text{-}C_6)$-straight or branched alkyl, or $\text{–S(O)}_2\text{-Ar}$; wherein

any alkyl, alkenyl or alkynyl group is optionally substituted with 1 to 3 independently selected halo groups; and

any Ar, aromatic carbocyclic ring or heterocyclic ring is optionally substituted with 1 to 3 substituents independently selected from halo, hydroxy, nitro, cyano, amino, $(C_1\text{-}C_4)$-straight or branched alkyl; $\text{O-}(C_1\text{-}C_4)$-straight or branched alkyl, $(C_2\text{-}C_4)$-straight or branched alkenyl or

alkynyl, or O-(C_2-C_4)-straight or branched alkenyl or alkynyl;

any Ar, aromatic carbocyclic ring or heterocyclic ring is optionally benzofused; with the provisos that:

at least two of R_1, R_2, R_3, R_4, or R_5 is hydrogen;

no more than two of R_1, R_2, R_3, R_4, or R_5 comprises Ar;

at least two of R_7, R_8, R_9, R_{10} or R_{11} is hydrogen; and

no more than two of R_7, R_8, R_9, R_{10} or R_{11} comprises Ar; and

when X is -C(O)-NH- or -NH-C(O)-, any two adjacent groups selected from R_1, R_2, R_3, R_4, and R_5 are taken together with the carbon atoms to which they are bound to form an unsubstituted fused benzene ring, the remaining three of R_1, R_2, R_3, R_4, and R_5 are one hydroxy group and two hydrogen groups, and four of R_7, R_8, R_9, R_{10}, and R_{11} are hydrogen, then the remaining one of R_7, R_8, R_9, R_{10}, and R_{11} is not 2-(4-chloro-phenyl)-ethyl, 2-(3,4-dichloro-phenyl)ethyl, 2-(3,4-dimethoxy-phenyl)ethyl, or 2-(1,1'-biphenyl-4-yl)ethyl; and

when X is -C(O)-NH- or -NH-C(O)-, any two adjacent groups selected from R_7, R_8, R_9, R_{10}, and R_{11} are taken together with the carbon atoms to which they are bound to form an unsubstituted fused benzene ring, the remaining three of R_7, R_8, R_9, R_{10}, and R_{11} are one hydroxy group and two hydrogen groups, and four of R_1, R_2, R_3, R_4, and R_5 are hydrogen, then the remaining one of R_1, R_2, R_3, R_4, and R_5 is not 2-(4-chlorophenyl)-ethyl, 2-(3,4-dichlorophenyl)ethyl, 2-(3,4-dimethoxy-phenyl)ethyl, or 2-(1,1'-biphenyl-4-yl)ethyl;

when X is $-SO_2-NH-$ or $-NH-SO_2-$, one of R_1, R_2, R_3, R_4, and R_5 is $-NH_2$, the remaining four of R_1, R_2, R_3, R_4, and R_5 are hydrogen, and any two adjacent groups selected from R_7, R_8, R_9, R_{10}, and R_{11} are taken together with the carbon atoms to which they are bound to form an unsubstituted pyridine ring fused to a benzene ring, then at least one of the remaining R_7, R_8, R_9, R_{10}, and R_{11} is not hydrogen or $-OCH_3$;

when X is $-SO_2-NH-$ or $-NH-SO_2-$, one of R_7, R_8, R_9, R_{10}, and R_{11} is $-NH_2$, the remaining four of R_7, R_8, R_9, R_{10}, and R_{11} are hydrogen, and any two adjacent groups selected from R_1, R_2, R_3, R_4, and R_5 are taken together with the carbon atoms to which they are bound to form an unsubstituted pyridine ring fused to a benzene ring, then at least one of the remaining R_1, R_2, R_3, R_4, and R_5 is not hydrogen or $-OCH_3$;

when X is $-SO_2-NH-$ or $-NH-SO_2-$ and four of R_1, R_2, R_3, R_4, and R_5 are hydrogen, then any two adjacent groups selected from R_7, R_8, R_9, R_{10}, and R_{11} are not taken together with the carbon atoms to which they are bound to form an unsubstituted indole ring, an indole ring substituted by -Cl, =O, -cyano, $-CH_3$, or $-C(O)-CH_3$, or an unsubstituted indazole ring; and

when X is $-SO_2-NH-$ or $-NH-SO_2-$ and four of R_7, R_8, R_9, R_{10}, and R_{11} are hydrogen, then any two adjacent groups selected from R_1, R_2, R_3, R_4, and R_5 are not taken together with the carbon atoms to which they are bound to form an unsubstituted indole ring, an indole ring substituted by -Cl, =O, -cyano, $-CH_3$, or $-C(O)-CH_3$, or an unsubstituted indazole ring; and

b) a carrier, adjuvant or vehicle, which is pharmaceutically acceptable for oral administration or administration by injection.

47. (Canceled).

48. (Currently amended) The composition according to ~~any one of claims 19-20, 41-42, and 45-46~~ claim 46 or 20, wherein X is -N(H)-C(O)- or -C(O)-N(H)-.

49. (Canceled).

50. (New) A composition comprising:

a) a compound selected from the group consisting of 100, 101, 102, 103, 104, 105, 106, 107, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 148, 149, 151, 152, 153, 154, 155, 156, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 175, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 190, 191, 192, 193, 196, 200, 204, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, and 326; and

b) a carrier, adjuvant, or vehicle, which is pharmaceutically acceptable for oral administration or administration by injection.

51. (New) The composition according to claim 50, further comprising an additional agent selected from an immunosuppressant, an anti-cancer agent, an anti-viral agent, an anti-inflammatory agent, an antifungal agent, an antibiotic, or an anti-vascular hyperproliferation compound.